Universidade Nova de Lisboa   Academic year 2018-2019

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Final Exam Macroeconomics

19th June 2019 – solution topics

I (20%)

Please comment on the **truth of the following statements**:

a) The monetary policy in a flexible exchange rate regime with perfect capital mobility is ineffective.

False. In this situation monetary policy is very powerful. An expansionary policy, brings interest rates down, which prompts a depreciation that will increase competitiveness and also X-M, reinforcing GDP.
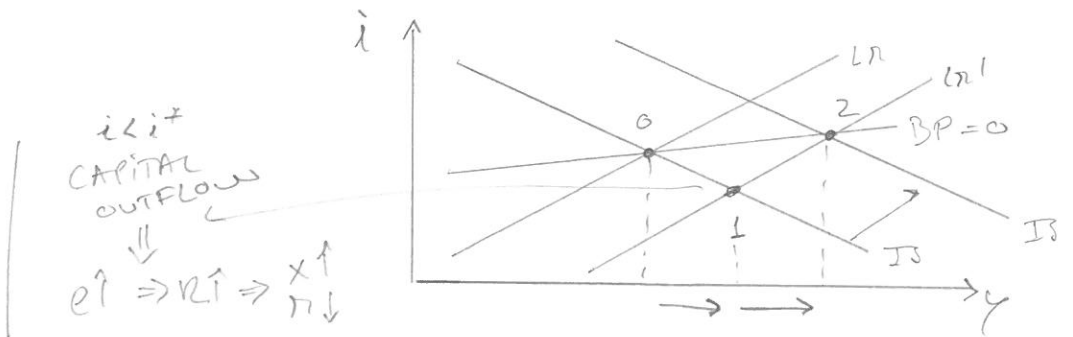
b) International capital flows are driven by interest rate differentials and risk premium between countries.

False. Expectations about the change in the nominal exchange rate are also part of the international interest rate parity equation: $i=i^*+(\text{expected } e_{(t+1)}-e_t)/e_t+$ risk premium of domestic country

c) Inflation corresponds to a sustained increase in the price of a specific set of goods.

False. Inflation corresponds to a sustained increase in a large share of goods and services in the economy, defined in the consumer price index (CPI).

d) Less developed countries have a higher likelihood of running current account imbalances.

True. These countries have a lower GDP, making it likely that savings (S) are low. Since investment (I) needs are large (S-I)<0 and the Government tends to run a fiscal deficit (T-G)<0, the external account (X-M) is also in deficit. This is proven by the fundamental identity of macroeconomics: (S-I)+(T-G)=(X-M)
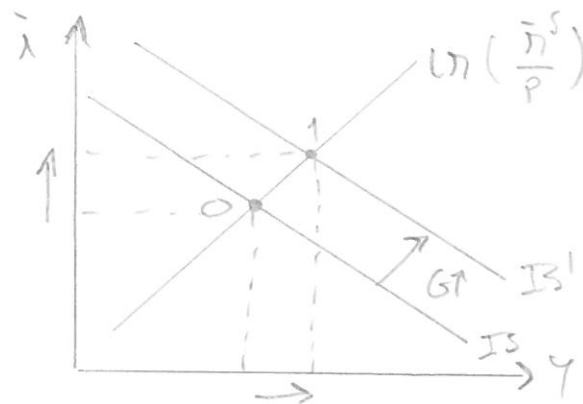
II (30%)

Fiscal policy is a key macroeconomic tool but its impact is quite different depending on the circumstances. Answer questions below using graphical representation.
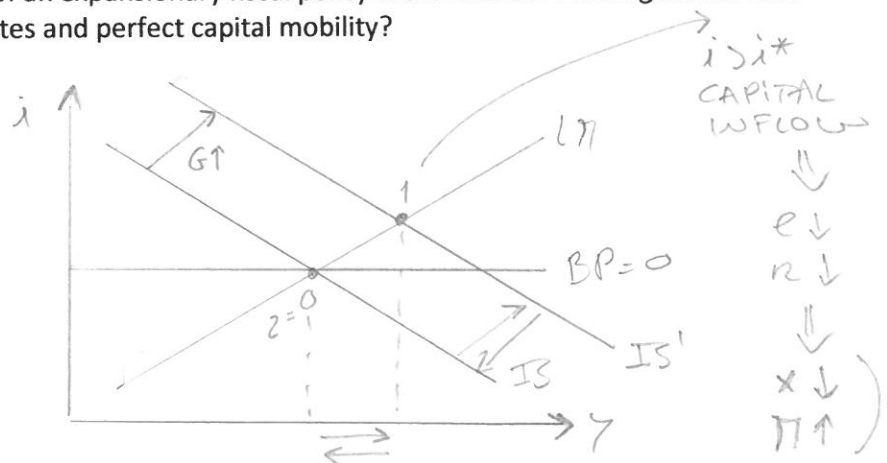
a) What is the impact of an expansionary fiscal policy in the simple Keynesian model?
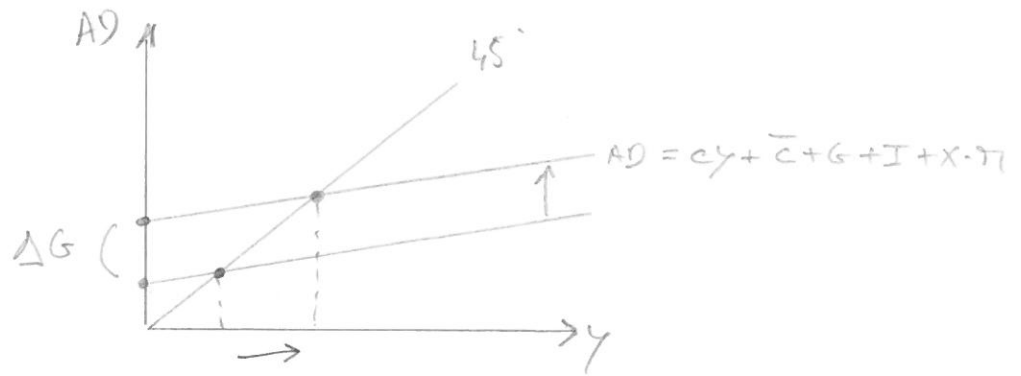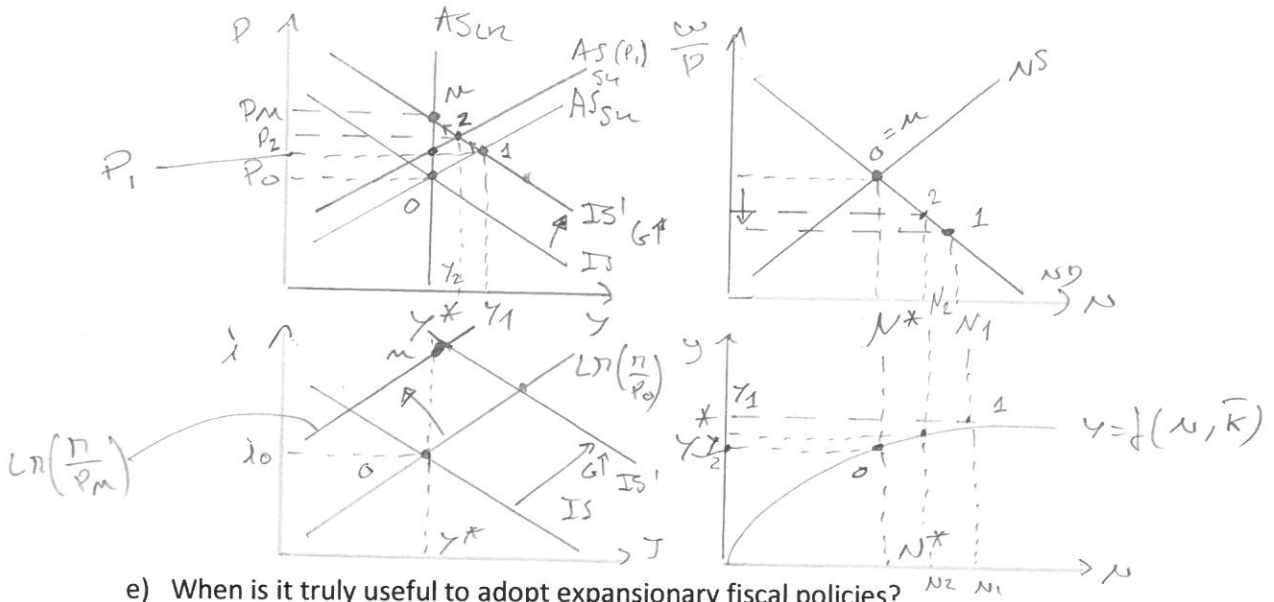

b) What is the impact of an expansionary fiscal policy in the IS-LM model?

c) What is the impact of an expansionary fiscal policy in the Mundel-Fleming model with flexible exchange rates and perfect capital mobility?

d) What is the impact of an expansionary fiscal policy in the AS-AD model?

e) When is it truly useful to adopt expansionary fiscal policies?

Overall, fiscal policies are not useful to increase GDP in the long run. That can only be achieved by structural policies. Nevertheless, in the short run, fiscal policy ca be used to guide the economy to the long run steady state in a faster way, for example, without the costs of prolonged unemployment.
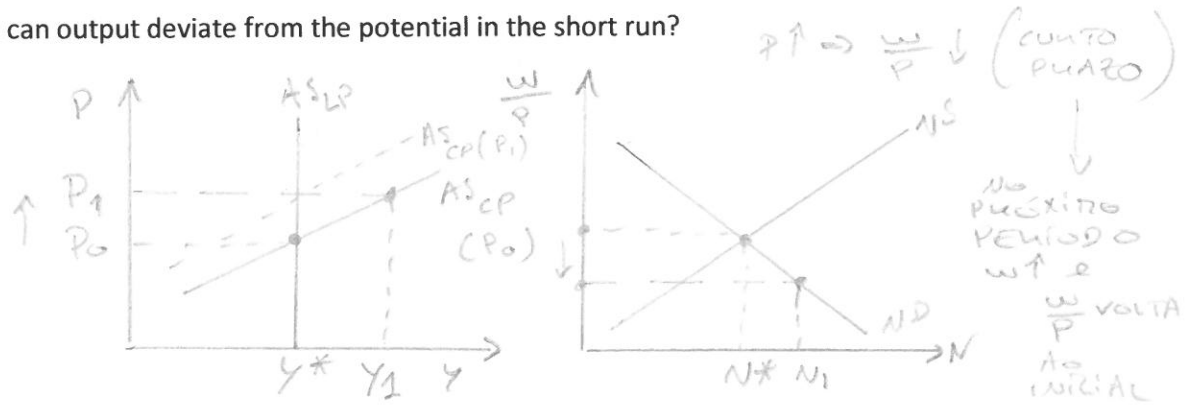
III (25%)

To promote **long run economic growth** should be the main goal of economic policy makers.

a) Explain how the (long-run) potential output is obtained in the AS-AD model.
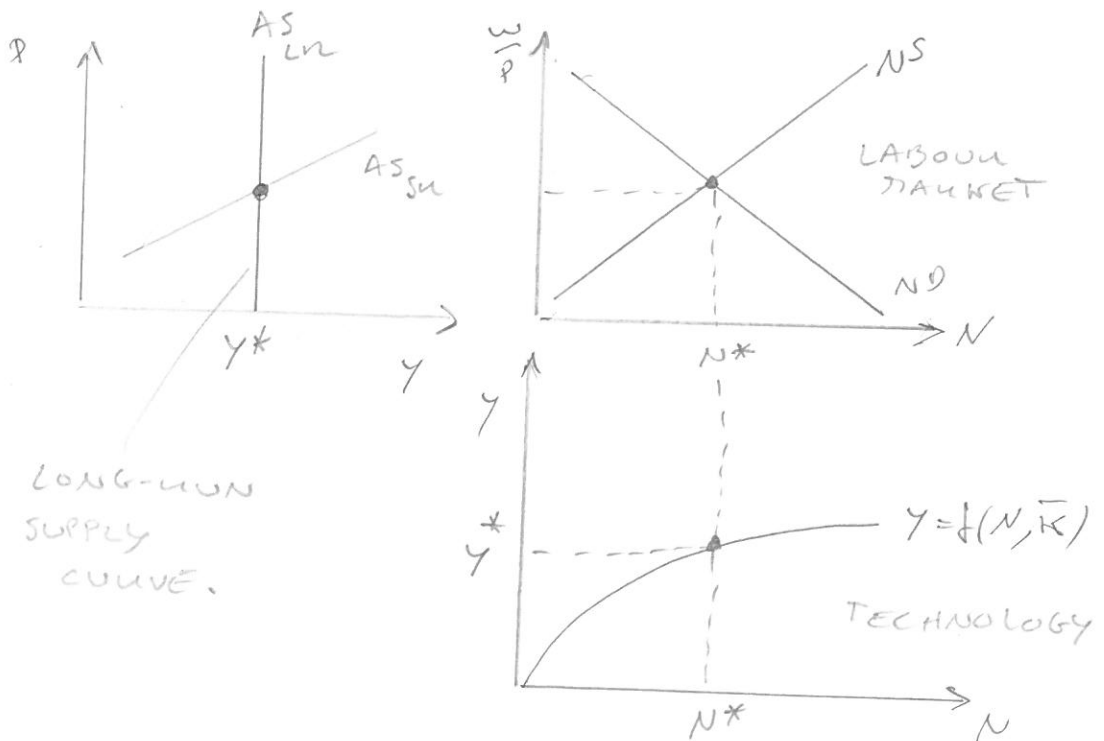
b) Why can output deviate from the potential in the short run?

$P\uparrow \Rightarrow \frac{w}{P}\downarrow$ (CURTO PRAZO)

NO PRÓXIMO PERÍODO $\frac{w}{P}$ VOLTA AO INICIAL

c) What are the policies that can affect the potential output? Please give examples.
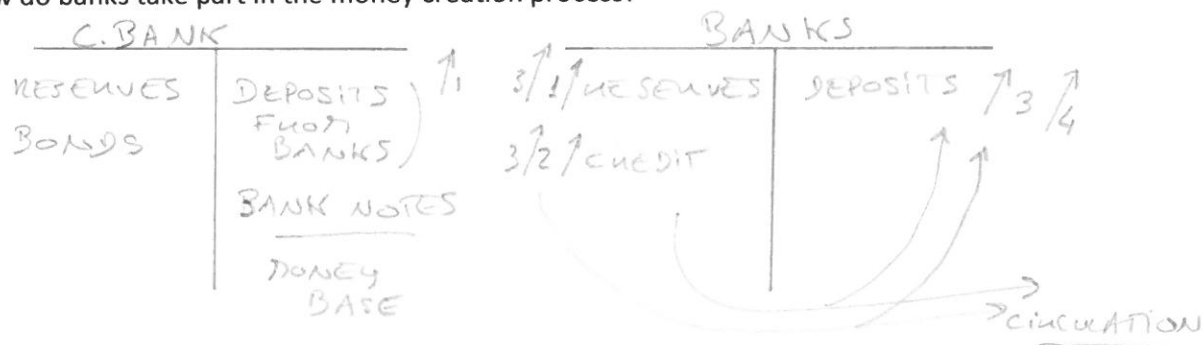
Structural policies that expand the production frontier (better technology, higher capital stock, more human capital) or the labour supply curve (increased participation in the labour market).

IV (25%)

a) Explain the process through which central bank leads to a decrease in interest rates.

The central bank sets an auction where it buys bonds from banks and gives them liquidity in return (open market operation). This new liquidity is used by the banks to give new credit, which initiates the money creation mechanism. The excess supply of money that emerges (for the existing interest rate) makes agents buy bonds leading to an increase in their price and a drop in interest rates. This has later further implications on investment and other macro variables.

b) How do banks take part in the money creation process?

C. BANK

RESERVES	DEPOSITS FROM BANKS
BONDS	BANK NOTES
	MONEY BASE

BANKS

3/1/ RESERVES | DEPOSITS
3/2/ CREDIT

CIRCULATION

c) Derive the expression of the money multiplier.

$$M = Deposits + CIRCULATION$$
$$MB = CIRCULATION + RESERVES$$

c. Deposits

$r \cdot Deposits$

$M = D + c \cdot D$

$MB = c \cdot D + r \cdot D$

$$\frac{M}{MB} = \frac{D + cD}{cD + rD} = \frac{1+c}{r+c}$$

$$M = \left(\frac{1+c}{r+c}\right) MB$$

MONEY MULTIPLIER

d) What are the main safety (confidence building) mechanisms in place in the banking system?

There are several safety mechanisms:

Legal rate of reserves (small percentage of deposits)

Minimum capital ratios

Deposit insurance fund

Prudential supervision

Lender of last resort